

Claims

[c1] 1. A control circuit, for a frequency converter, comprising:

- a starter circuit, for determining whether or not to turn on/off said control circuit;
- a switch circuit, for determining whether or not to turn on/off said switch circuit;
- a starter relay, for turning on said frequency converter, wherein when a voltage level of a power supply to said control circuit is below a first predetermined voltage level, said starter relay is turned off, and when said voltage level of said power supply to said control circuit is raised to above a second predetermined voltage level, said starter relay is turned on;
- a timer relay, wherein when said voltage level of said power supply to said control circuit is below said first predetermined voltage level, said timer relay remain on for a predetermined time period; and
- a timer switch, wherein said timer relay determines whether or not to turn on/off said timer switch; wherein said timer switch and said switch circuit are connected in parallel forming a first parallel circuit, said starter relay and timer relay are connected in parallel

forming a second parallel circuit, said first parallel circuit and said second circuit are connected in serial, and said starter circuit is coupled to said switch circuit.

- [c2] 2. The control circuit of claim 1, further comprising a stop-reset switch, said stop-reset switch and said timer relay being connected in parallel and being adapted to determine whether or not to turn on said timer relay.
- [c3] 3. The control circuit of claim 1, wherein when said voltage level of said power supply to said control circuit rises to above the second predetermined voltage level during said predetermined time period, said starter relay is turned on automatically.
- [c4] 4. The control circuit of claim 1, wherein when said voltage level of said power supply to said control circuit does not rise to above the second predetermined voltage level during said predetermined period, said timer relay is turned off.